

Having described the invention, the following is claimed:

1. A surgical instrument comprising a stem section extending from a handle, a cutting tool, said cutting tool including a rotatable cutter, a hollow articulated section connected with said cutting tool and said stem section, a rotatable drive shaft connected with said cutter and disposed in and extending axially through said stem section and said articulated section, said drive shaft having a flexible portion disposed in said articulated section, and actuator means connected with said handle for bending said articulated section and said flexible portion of said drive shaft to change the orientation of said cutter relative to tissue from a first orientation to a second orientation, said actuator means including first and second elongated elements which extend through said stem section and articulated section and are connected with said cutting tool, said elongated elements being disposed between an outer side surface of said flexible portion of said drive shaft and an inner side of said articulated section, said actuator means including means for pulling on one of said elongated elements to bend said articulated section and said flexible portion of said drive shaft to change the orientation of said cutter from the first orientation to the second orientation, said drive shaft being rotatable relative to said articulated section to rotate said cutter when said cutter is in the first orientation and when said cutter is in the second orientation;

2. A surgical instrument comprising a stem section extending from a handle, a cutting tool, said cutting tool including a rotatable cutter, a hollow articulated section connected with said cutting tool and said stem section, a rotatable drive shaft connected with said cutter and disposed in and extending axially through said stem section and said articulated section, said drive shaft having a flexible portion disposed in said articulated section, and actuator means connected with said handle for bending said articulated section and said flexible portion of said drive shaft to change the orientation of said cutter relative to tissue from a first orientation to a second orientation, said actuator means including first and second elongated elements which extend through said stem section and articulated section and are connected with said cutting tool, said elongated elements

2. A surgical instrument comprising a stem section extending from a handle, a cutting tool, said cutting tool including a rotatable cutter, a hollow articulated section connected with said cutting tool and said stem section, a rotatable drive shaft connected with said cutter and disposed in and extending axially through said stem section and said articulated section, said drive shaft having a flexible portion disposed in said articulated section, and actuator means connected with said handle for bending said articulated section and said flexible portion of said drive shaft to change the orientation of said cutter relative to tissue from a first orientation to a second orientation, said actuator means including first and second elongated elements which extend through said stem section and articulated section and are connected with said cutting tool, said elongated elements

said surgical instrument further including passage means extending through said drive shaft for conducting irrigating fluid through said drive shaft from said handle to said cutter.

said surgical instrument further including passage means extending axially through said drive shaft for conducting tissue from a location adjacent to said cutter through said articulated section and said stem section toward the handle.

wherein said actuator means includes first and second elongated elements which extend through said stem section and articulated section and are connected with said cutting tool, said elongated elements being disposed between an outer side surface of said flexible section of said drive shaft and an inner side of said articulated section, said actuator means including means for pulling on said first elongated element to bend said articulated section and the flexible section of the drive shaft in a first direction, said actuator means including means for pulling on said second elongated element to bend said articulated section and said flexible section of said drive shaft in a second direction opposite to said first direction.

5. A surgical instrument comprising a hollow rigid stem section extending from a handle, a cutting tool, said cutting tool including a rotatable cutter, a hollow articulated section connected with said cutting tool and said stem section, a

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11

rotatable drive shaft connected with said cutter and disposed in and extending axially through said stem section and said articulated section, said drive shaft including a rigid section disposed in said stem section and a flexible section disposed in said articulated section, and actuator means connected with said handle for bending said articulated section and said flexible section of said drive shaft to change the orientation of said cutter relative to tissue from a first orientation to a second orientation, said drive shaft being rotatable relative to said articulated section when said cutter is in the first orientation and when said cutter is in the second orientation;

said surgical instrument further including passage means extending axially through said drive shaft for conducting irrigating fluid from said handle to said cutter.

6. A surgical instrument comprising a stem section extending from a handle, a movable member, a hollow articulated section connected with said movable member and said stem section, a drive shaft connected with said movable member and disposed in and extending axially through said stem section and said articulated section, said drive shaft having a flexible portion disposed in said articulated section, and actuator means connected with said handle for bending said articulated section and said flexible portion of said drive shaft to change the orientation of said movable member relative to tissue from a first orientation to a second orientation, said actuator means including first and second elongated elements which extend through said stem section and articulated section and are connected with said movable member, said actuator means including means for pulling on one of said elongated elements to bend said articulated section and said flexible portion of said drive shaft to change the orientation of said movable member from the first orientation to the second orientation, said drive shaft being movable relative to said articulated section to move said movable member when said movable member is in the first orientation and when said movable member is in the second orientation;

said surgical instrument further including passage means extending axially through said drive shaft for conducting tissue from a location adjacent to said movable member through said articulated section and said stem section toward the handle.

7. A surgical instrument comprising a stem section extending from a handle, a movable member, a hollow articulated section connected with said movable member and said stem section, a drive shaft connected with said movable member and disposed in and extending axially through said stem section and said articulated section, said drive shaft having a flexible portion disposed in said articulated section, and actuator means connected with said handle for bending said articulated section and said flexible portion of said drive shaft to change the orientation of said movable member relative to tissue from a first orientation to a second orientation, said actuator means including first and second elongated elements which extend through said stem section and articulated section and are connected with said movable member, said actuator means including means for pulling on one of said elongated elements to bend said articulated section and said flexible portion of said drive shaft to change the orientation of said movable member from the first orientation to the second orientation, said drive shaft being movable relative to said articulated section to move said

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movable member when said movable member is in the first orientation and when said movable member is in the second orientation;

said surgical instrument further including passage means extending through said drive shaft for conducting irrigating fluid through said drive shaft from said handle to said movable member.

[8. A surgical instrument comprising a handle, a stem section extending from said handle, means for acting on tissue including a movable member, a hollow articulated section connected with said movable member and said stem section, means connected with said movable member for moving said movable member relative to said articulated section, said means being disposed in and extending axially through said stem section and said articulated section, said means having a flexible portion disposed in said articulated section, and actuator means connected with said handle for bending said articulated section and said flexible portion of said means for moving said movable member to change the orientation of said movable member relative to tissue from a first orientation to a second orientation, said actuator means including at least one elongate element which extends through said stem section and articulated section and is connected with said movable member, said means for moving said movable member being movable relative to said articulated section to move said movable member relative to said articulated section when said movable member is in the first orientation and when said movable member is in the second orientation;

*a portion of
portion*

portion 1

said surgical instrument further including passage means extending axially through said means for moving said movable member for conducting tissue from a location adjacent to said movable member through said articulated section and said stem section toward said handle;

*from said
movable member*

[9. A surgical instrument comprising a handle, a stem section extending from said handle, means for acting on tissue including a movable member, a hollow articulated section connected with said movable member and said stem section, means connected with said movable member for moving said movable member relative to said articulated section, said means being disposed in and extending axially through said stem section and said articulated section, said means having a flexible portion disposed in said articulated section, and actuator means connected with said handle for bending said articulated section and said flexible portion of said means for moving said movable member to change the orientation of said movable member relative to tissue from a first orientation to a second orientation, said actuator means including at least one elongate element which extends through said stem section and articulated section and is connected with said movable member, said means for moving said movable member being movable relative to said articulated section to move said movable member relative to said articulated section when said movable member is in the first orientation and when said movable member is in the second orientation;

*for conducting tissue from a location
adjacent to said movable member to
said handle, said passage means*

said surgical instrument further including passage means extending through said means for moving said movable member for conducting irrigating fluid from said handle to said movable member.

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a handle;

a stem section extending from said

handle;

means for acting on tissue including a

movable member;

a hollow articulated section connected
to said movable member and said stem section;
(drive shaft)
means connected to a portion of said
movable member for moving said portion relative to
said articulated section, said means being disposed
in and extending axially through said stem section
and said articulated section, said means having a
flexible portion disposed in said articulated
section; and

actuator means connected to said handle
for bending said articulated section and said
flexible portion of said means for moving said
portion of said movable member to change the
orientation of said movable member relative to
tissue from a first orientation to a second
orientation, said actuator means including at least
one elongated element which extends through said
stem section and said articulated section and is
connected to said movable member;

said means for moving said portion of
said movable member being movable relative to said

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said surgical instrument further
including passage means for conducting tissue from
a location adjacent to said movable member to said
handle, said passage means extending axially from
said movable member through said articulated
section and said stem section to said handle, said
passage means extending through said means for
moving said portion of said movable member.

- means connected to a portion of said
movable member for moving said portion relative to
said articulated section, said means being disposed
in and extending axially through said stem section
and said articulated section, said means having a
flexible portion disposed in said articulated
section; and

actuator means connected to said handle
for bending said articulated section and said
flexible portion of said means for moving said
portion of said movable member to change the
orientation of said movable member relative to
tissue from a first orientation to a second
orientation, said actuator means including at least
one elongated element which extends through said
stem section and said articulated section and is
connected to said movable member;

said means for moving said portion of
said movable member being movable relative to said
articulated section to move said movable member
relative to said articulated section when said
movable member is in the first orientation and when
said movable member is in the second orientation;

said surgical instrument further
including passage means for conducting irrigating
fluid from said handle to said movable member, said
passage means extending axially from said handle
through said articulated section and said stem
section to said movable member, said passage means
extending through said means for moving said
portion of said movable member.

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